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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,167	04/16/2004	Hans-Joachim Schmidt	03P06009	2421

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EXAMINER	
BERMAN, JACK I	
ART UNIT	**PAPER NUMBER**
2881	

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/825,167	SCHMIDT, HANS-JOACHIM	
	Examiner	Art Unit	
	Jack I. Berman	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-15 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 16 April 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4/16/04,3/28/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 5, 8-10, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Uzgiris et al. Uzgiris et al. discloses an infrared radiator having a luminous element (incandescent filament 42) for producing infrared radiation which is arranged in the interior of a vessel (heating lamp 28) which is permeable to infrared radiation, the vessel having a region which surrounds said interior and at least one closed end which is connected to said region, and said vessel being coated on its outer surface with an interference filter (40), wherein said interference filter extends at least over said entire region which surrounds said interior, and said interference filter is designed such that it is transparent to infrared radiation of a predetermined subrange from the wavelength range of 700 nm to 1200 nm (see lines 52-57 in column 4), which subrange is included in the range of 700 nm to 3500 nm claimed in claim 1 of the instant application and includes the subranges of from 720 nm to 920 nm claimed in claim 8, from 800 nm to 1000 nm claimed in claim 9, and from 800 nm to 1200 nm claimed in claim 10, and radiation emitted by the luminous element from the visible spectral range and infrared radiation outside the predetermined wavelength range is reflected back into the interior of said vessel. Uzgiris et al. also discloses an irradiation apparatus (radiant oven 10) having this infrared radiator and a reflector (30) for infrared radiation surrounding the infrared radiator.

Claims 1 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Satoru et al. Satoru et al. discloses an infrared radiator having a luminous element (halogen lamp 1) for

producing infrared radiation which is arranged in the interior of a vessel (filter 22) which is permeable to infrared radiation, the vessel having a region which surrounds said interior and at least one closed end which is connected to said region (see Drawing 3), and said vessel being coated with an interference filter (see abstract), wherein said interference filter extends at least over said entire region which surrounds said interior, and said interference filter is designed such that it is transparent to infrared radiation of a predetermined subrange from the wavelength range of 800 nm to 2000 nm (see paragraph [0003] of the translation of the Detailed Description of the patent from the Industrial Property Digital Library, http://www.ipdl.ncipi.go.jp/homepg_e.ipdl), which subrange is included in the range of 700 nm to 3500 nm claimed in claim 1 of the instant application and includes the subranges of from 800 nm to 1000 nm claimed in claim 9, from 800 nm to 1200 nm claimed in claim 10, and from 800 nm to 2000 nm claimed in claim 1, and radiation emitted by the luminous element from the visible spectral range and infrared radiation outside the predetermined wavelength range is reflected back into the interior of said vessel.

Claims 1-7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Köstlin et al. Köstlin et al. discloses an infrared radiator having a luminous element comprising at least one incandescent filament for producing infrared radiation wherein the material, the geometry and the dimensions of said at least one incandescent filament are selected such that the incandescent filament has a temperature of at least 2900^0C during operation of the infrared radiator at its rated operational data (see the second paragraph on the left-hand side of page 347), said filament is aligned axially within the interior of an axially symmetrical vessel in the form of an ellipsoid (the lamp illustrated in Fig. 2) which is permeable to infrared radiation (see lines 5-10 in the first paragraph of Section 2.1 on page 348), the vessel having a region which surrounds said interior

and at least one closed end which is connected to said region, and said vessel being coated with an interference filter (the entire article is drawn to a method for coating interference filters on the outer surfaces of lamps), wherein said interference filter extends at least over said entire region which surrounds said interior, and said interference filter is designed such that it is transparent to infrared radiation of a predetermined subrange from the wavelength range of greater than 1350 nm (again, see lines 5-10 in the first paragraph of Section 2.1 on page 348), which subrange is included in the range of 700 nm to 3500 nm claimed in claim 1 of the instant application and includes the subrange of from 2500 nm to 3500 nm claimed in claim 12, and radiation emitted by the luminous element from the visible spectral range and infrared radiation outside the predetermined wavelength range is reflected back into the interior of said vessel.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cassarly et al. Cassarly et al. discloses an infrared radiator having a luminous element (high intensity light source 116 in Figure 11) that may comprise a gas discharge in xenon (see lines 25-36 in column 1) for producing infrared radiation which is arranged in the interior of a vessel (vitreous envelope 116B) which is permeable to infrared radiation (see lines 46-47 in column 8), the vessel having a region which surrounds said interior and at least one closed end which is connected to said region, and said vessel being coated with an interference filter (see line 44 in column 8), wherein said

interference filter extends at least over said entire region which surrounds said interior, and said interference filter is designed such that it is transparent to infrared radiation of a predetermined subrange and radiation emitted by the luminous element from the visible spectral range and infrared radiation outside the predetermined wavelength range is reflected back into the interior of said vessel. Cassarly et al. does not specify the wavelength subrange to which the interference filter (86) is transparent, but since methods of designing such interference filters to transmit any desired wavelength range are known in the art, as is discussed by all the cited references, and Cassarly et al. teaches that infrared radiation should be transmissible through the filter, as is discussed above, it would have been obvious to a person having ordinary skill in the art to design Cassarly et al.'s interference filter (86) to be transparent to infrared radiation of a predetermined subrange from the wavelength range of 700 nm to 3500 nm if this were the desired range and it was not already inherently the characteristic wavelength window of Cassarly et al.'s filter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack I. Berman whose telephone number is (571) 272-2468. The examiner can normally be reached on M-F (8:30-6:00) with every second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jack I. Berman
Primary Examiner
Art Unit 2881

jb
7/20/05